

**CLAIMS**

1. A method for passivating the contact surface of a refractory container made mainly of mullite, which comprises the following operations:
  - a. application to the contact surface of a coating comprising 50% to 70% by weight of alumina flour ( $\text{Al}_2\text{O}_3$ ) filler and 30% to 50% of binder, this binder itself comprising 50% to 60% of aluminum chloride  $\text{AlCl}_3$  dissolved in 40% to 50% of water;
  - b. drying;
  - c. firing of the container in an oxidizing atmosphere between  $1450^\circ\text{C}$  and  $1550^\circ\text{C}$  for at least 20 minutes.
2. The method as claimed in claim 1, wherein the coating also comprises a water-soluble organic dye.
3. The method as claimed in claim 2, wherein the dye is methylene blue in a total proportion of 0.1% to 0.5% by weight.
4. The method as claimed in one of claims 1 to 3, wherein the coating comprises 50% to 55% by weight of alumina flour ( $\text{Al}_2\text{O}_3$ ) filler and 45% to 50% of binder, and wherein it is applied by air brush.
5. The method as claimed in one of claims 1 to 3, wherein the coating comprises 55% to 70% by weight of alumina flour ( $\text{Al}_2\text{O}_3$ ) filler and 30% to 45% of binder, and wherein it is applied by brush.
6. A coating used in the method claimed, which comprises 50% to 70% by weight of alumina flour ( $\text{Al}_2\text{O}_3$ ) filler and 30% to 50% of binder, this binder itself comprising 50% to 60% of aluminum chloride  $\text{AlCl}_3$  dissolved in 40% to 50% of water.

7. The coating as claimed in claim 6, which comprises 50% to 55% by weight of alumina flour ( $\text{Al}_2\text{O}_3$ ) filler and 45% to 50% of binder.

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8. The coating as claimed in claim 6, which comprises 55% to 70% by weight of alumina flour ( $\text{Al}_2\text{O}_3$ ) filler and 30% to 45% of binder.